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10/040,453	01/09/2002	Masanori Miyoshi	503.41022X00	2617
24956 7590 09/25/2008 MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314				
EXAMINER JARRETT, SCOTT L				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/040,453

**Applicant(s)**

MIYOSHI ET AL.

**Examiner**

SCOTT L. JARRETT

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-6 and 16-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2-6 and 16-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This **Final** Office Action is in response to Applicant's amendment filed July 7, 2008. Applicant's amendment amended claims 2-6, added new claims 16-18 and canceled claims 7-15. Currently claims 2-6 and 16-18 are pending.

***Response to Amendment***

2. The Objection to Claim 15 in the previous office action is withdrawn in response to applicant's cancellation of claim 15.

***Response to Arguments***

3. Applicant's arguments with respect to claims 2-6 and 16-18 have been considered but are moot in view of the new ground(s) of rejection.

It is noted that the applicant did not challenge the officially cited facts in the previous office action therefore those statements as presented are herein after prior art. Specifically it has been established that it was old and well known in the art at the time of the invention to enable an alarm when collected values are outside of a pre-determined permissible range.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2-6 and 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 2 and 3, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meller, Russell Dean, Layout algorithms for single and multiple floor facilities (1992) in view of Dabiere et al., U.S. Patent No. 6,965,876.

Regarding Claims 2 and 3 Meller teaches a system and method for facility management comprising:

- measuring a flow line (path, route, track, etc.) of a moving body in a monitored (simulated) facility (building, office, warehouse, plant, factory, etc.) and outputting flow line information based on the measuring (Paragraphs 2-3, Page 161; Page 162; Figures 3.1, 3.2);

- generating/producing management information from the flow line information (Page 154; Figures 3.1, 3.2);

- where the generating/producing further comprises:
  - identifying each of a plurality of moving means (e.g. walking, elevators, lifts, etc.) moving the body from one location to another location (Paragraph 2, Page 9; Paragraph 2, Page 13; Paragraph 2, Page 133; Pages 132, 134);

- calculating a cost expended on moving the body from location to location by the identified moving means based on the flow line information (Bullet 3, Page 7; Bullet 1, Page 10; Paragraphs 2-3, Page 148; Paragraph 2, Page 148; Paragraph 2, Page 167 – cost by conveyor; Last Paragraph, Page 169; Table 6.1);

- producing management information based on the calculated costs (Pages 154; Last Paragraph, Page 196; Tables 6.1, 6.2, 6.3);

- wherein the flow line includes a plurality of sections (floors, departments, segments, routes, paths, areas, etc.) correspond to each of the moving means and calculating for each of the plurality of sections a total sum of values as the movement cost each of the values calculated by multiplying a time unit price (cost) to identified moving means by a time period required for the moving corresponding to the section (Bullet 3, Page 7; Bullet 1, Page 10; Paragraphs 2-3, Page 148; Paragraphs 1, 3, Page 149; Last Paragraph, Page 169; Table 6.1);

- wherein the time unit prices corresponds to the cost of moving the body per unit of time by the identified moving means and the time period is the length of time it takes to move the body along the length of the flow line in the section corresponding to the identified moving means (Paragraph 2, Page 133; Bullets 5-7, Page 134; Pages 148-149; Table 6.1); and

- wherein the time unit price is providing for each moving means based on a difference of running cost or maintenance costs for the moving means (Pages 133-134; Paragraph 2, Page 148; Paragraphs 1, 3, Page 149; Paragraphs 1-2, Page 167).

While Meller teaches collecting/measuring data from the facility in order to determine/measure flow paths, times and the like (Paragraphs 2-3, Page 161; Figure 8.2) Meller does not expressly teach measuring a flow line (path, route, track, etc.) of a moving body by detecting the moving body in a monitored facility as claimed.

Dabiere et al. teach a facility management system comprising a flow-line measuring means for measuring a flow line of a moving body by detecting the moving body in a facility to be monitored and outputting flow line information based on the measuring (Column 1, Lines 12-28, 3755; Column 2, 59-68; Column 3, Lines 17-35; Figure 1) in an analogous art of facility management for the purpose of determining productivity of 'flow-lines' (movement of bodies), improving facility efficiency through the monitoring and analysis of the movement of bodies and/or to determine better maintenance intervals based on the movement of bodies (Column 1, Lines 29-33; 45-54; Column 3, Lines 30-35).

It would have been obvious to one skilled in the art at the time of the invention that the facility management system and method as taught by Meller would have benefited from detecting moving bodies in a facility in view of the teachings of Dabiere et al. the resultant system/method enabling users to improve facility efficiency and/or maintenance intervals based on detected and monitored movement of bodies (Dabiere et al.: Column 1, Lines 29-33; 45-54; Column 3, Lines 30-35).

Regarding Claim 4 Meller teaches a facility management system and method further comprising: judging (determining) whether a cost calculated is within a permissible range (threshold, minimum, maximum, feasible, etc.; Last Paragraph, Page 7; Last Paragraph, Page 155; Last Paragraph, Page 43).

Meller does not expressly teach generating/outputting an alarm when the movement cost is outside of the permissible range as claimed.

Official notice is taken that is old and well known to enable an alarm when values are outside of a pre-determined range wherein such alarms (alerts, warnings, etc.) provide feedback to the user of the system/method that one or more constraints have been exceeded.

It would have been obvious to one skilled in the art at the time of the invention that the system and method for facility management as taught by Meller with its utilization of constraints and design thresholds to ensure feasible facility layouts (Last Paragraph, Page 155) would have benefited from generating/providing an alarm (alert, warning, message, etc.) to the user of the system/method when one or more of the constraints was exceeded in view of the teachings of official notice since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of

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ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 5 and 16 Meller teaches a facility management system and method further comprising optimizing a layout of the facility so as to minimize movement cost (Last Paragraph, Page 7; Last Paragraph, Page 43; Last Paragraph, Page 155; Page 154).

8. Claims 6, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meller, Russell Dean, Layout algorithms for single and multiple floor facilities (1992) in view of Dabiere et al., U.S. Patent No. 6,965,876 as applied to claims 2-5 and 16 above, and further in view of Zetu, Dan A., Telemetry-Based Input Model and Long-Range Motion Tracking For Virtual Factory (1993).

Regarding Claims 6, 17 and 18 Meller teaches collecting/measuring data from the facility in order to determine/measure flow paths, times and the like (Paragraphs 2-3, Page 161; Figure 8.2).

Meller does not expressly teach monitoring wherein the flow line measuring means is installed in the monitored facility and the management information generation means is installed in a monitoring center connected to the measuring line means through a communications network as claimed.

Zetu teaches a facility management system and method wherein the flow line measuring means is installed in the monitored facility and the management information generation means is installed in a monitoring center connected to the measuring line means through a communications network (Paragraph 2, Page xiii; Paragraph 2, Page 2) in an analogous art of facility management for the purpose of remotely managing a manufacturing facility and or generating a model of a facility (Paragraph 2, Page xiii; Paragraph 2, Page 2).

It would have been obvious to one skilled in the art at the time of the invention that the facility management system and method as taught by the combination of Meller and Dabiere et al., would have benefited from remotely monitoring a facility in view of the teachings of Zetu; the resultant system/method enabling users to remotely monitor and management a manufacturing facility (Zetu: Paragraph 2, Page 2).

Further it is noted that the specific location (installation) of the system/method (remote, local, etc.) merely non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific architecture of the system. Further, the structural elements remain the same regardless of the specific architecture of the system. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); *MPEP* 2106.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Scribner et al., U.S. Patent No. 5,698,026, teach a system and method for detecting and monitoring the movement of bodies in a facility.

- Berson, U.S. Patent No. 6,802,005, teach a system and method for detecting and monitoring the movement of bodies within a facility.

- Vollmann et al., The Facility Layout Problem in Perspective (1966), teach the old and very well known study of facility layout wherein cost and flow (line) data is collected/measured and analyzed in order to create and/or improve the layout of a facility (e.g. flow analysis).

- Kim, Algorithms for automated three-dimensional facility layout problem (1992) teach a system and method for optimizing the layout of a facility based in part of the analysis of movement of bodies within the facility.

- Sly, Plant Design for Efficiency Using AutoCAD and FactoryFLOW (1995) teach a facility management system and method comprising: measuring flow line of moving bodies within a facility; generating/producing management information based on the movement of the bodies, identifying a plurality of moving means (e.g. conveyors), and calculating a cost for moving the bodies via the various moving means.

- Gourgand et al., Choice of the guide path layout for an AGV based material handling system (1995), teach a system and method for measuring and analyzing the

movement of bodies (automated guided vehicle systems) in a manufacturing facility for the purpose of optimizing the layout of the facility based on flow-line analysis.

- Khan et al., Plant layout improvements to a medium volume manufacturing system using systematic techniques for just-in-time manufacturing cells (1997) teach a system and method for analyzing the movement of bodies within a facility in order to improve the facility's layout.

- Brett et al., Integrated Facility Layout and Material Handling System Design in a Semiconductor Fabrication Facilities (1997) teach a system and method for facility design (layout) based on measured flow-line data including data related a plurality of means for moving bodies (e.g. materials) throughout a facility (semiconductor fabrication facility).

- Review of Factory Programs: FactoryCAD, FactoryFLOW and FactoryPLAN (1998), teach a plurality of commercial available systems/methods for modeling and analyzing a facility's layout comprising flow-line analysis as well determining/measuring the costs to move one or more bodies (materials) via one or more movement mechanisms (elevators, lifts, etc.; hourly fuel costs, time per move, etc.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT L. JARRETT whose telephone number is (571)272-7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Scott L Jarrett/  
Primary Examiner, Art Unit 3623